Filing Date: September 23, 2003

DEMAND-BASED CARDIAC FUNCTION THERAPY

IN THE CLAIMS

Please amend the claims as follows:

1-10. (Canceled)

A method for operating an implantable device-which delivers 11. (Currently Amended) cardiac function therapy to a patient, comprising:

implanting a cardiac pacing device having a plurality of pacing channels in a patient so as to allow paces to be delivered to a plurality of ventricular sites;

configuring the cardiac pacing device to deliver cardiac function therapy that effects reversal of ventricular remodeling by delivering pacing pulses to one or more stressed or hypertrophied ventricular regions in a manner that pre-excites those region(s) relative to other ventricular regions;

configuring the cardiac pacing device to assess the patient's cardiac function by measuring a physiological variable affected by reversal of remodeling;

delivering pacing pulses in accordance with a programmed pacing mode and with a defined pulse output sequence and pulse output configuration for delivering cardiac-function therapy;

configuring the cardiac pacing device to temporarily suspending delivery of cardiac function therapy at periodic intervals, assessing the patient's cardiac function while no cardiac function therapy is being delivered, and either ceasing or continuing cease or continue the delivery of cardiac function therapy based upon the cardiac function assessment; and,

wherein the cardiac function therapy comprises multi-site ventricular pacing which preexcites selected myocardial regions in order to redistribute myocardial wall stress during systole for the purpose of reversing ventricular remodeling.

The method of claim 11 wherein the cardiac function therapy 12. (Previously Presented) improves the patient's cardiac pumping performance.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE

Serial Number: 10/669,170

Filing Date: September 23, 2003

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13. (Canceled)

14. (Currently Amended) The method of claim 11 further comprising measuring wherein the

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measured physiological variable is cardiac output and wherein the cardiac function assessment

includes comparing the measured cardiac output to a specified threshold value.

15. (Currently Amended) The method of claim 11 14 wherein the cardiac output is measured

by measuring a trans-throracic impedance and heart rate.

16. (Original) The method of claim 14 further comprising measuring the patient's exertion level

and wherein the cardiac function assessment includes comparing a function of the measured

cardiac output and measured exertion level to a specified threshold value.

17. (Original) The method of claim 11 wherein the cardiac function assessment includes an

assessment of the patient's autonomic balance by measuring the patient's heart rate variability.

18. (Original) The method of claim 17 further comprising:

measuring and collecting time intervals between successive chamber senses and storing

the collected intervals as a discrete RR interval signal, filtering the RR interval signal into

defined high and low frequency bands, and determining the signal power of the RR interval

signal in each of the low and high frequency bands, referred to LF and HF, respectively; and,

computing an LF/HF ratio and assessing cardiac function by comparing the LF/HF ratio

to a specified ratio threshold value.

19. (Original) The method of claim 11 wherein the suspension of cardiac function therapy and

assessment of the patient's cardiac function are performed upon a command from an external

programmer.

20. (Original) The method of claim 11 wherein the suspension of cardiac function therapy and

assessment of the patient's cardiac function are performed at periodic intervals.